13 Extended Pelvic Lymphadenectomy

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Standard lymphadenectomy is usually limited to obturator and external iliac lymph nodes. In a low risk group with PSA <10 ng/ml and a Gleason sum <7, a 2% risk of lymph node involvement is encountered and lymphadenectomy may be omitted before radical prostatectomy. However in patients with PSA >10 ng/ml, a biopsy Gleason sum >7 and a clinical stage greater than T2a, we found lymph node metastases in 26%. With extended pelvic lymphadenectomy, this resulted in a 15% diagnostic benefit over the standard lymphadenectomy approach. Lymphadenectomy including especially the internal iliac lymph nodes should be performed in a high risk patient group.

First the peritoneum is sharply dissected from the anterior abdominal wall, the ileopsoas region and the internal inguinal ring. The spermatic cord is freed. The fibrofatty tissue over the iliac artery is divided and the tissue between artery and vein resected. The lateral boundary of dissection is the iliac artery. The dissection is carried distally to reach the retrocrural lymph node of Cloquet near the inguinal canal. The circumflex iliac vein can be spared. Cranially the dissection is performed along the common iliac vessels to the bifurcation.

Dissection is carried along the bony surface of the pelvis and the levator fascia down to the obturator nerve. Care has to be taken to clip or ligate all afferent lymphatic vessels to prevent lymphocele formation.

Tissue is bluntly cleared dorsal to the iliac vein and along the obturator nerve to remove all obturator lymph nodes. Gentle lateral traction to the iliac vein with a peanut dissector or a vein retractor is performed. The obturator vessels may be either incorporated with the node package or left behind.

Fibrofatty tissue is resected from around the internal iliac artery and its branches to the pelvis.

Careful dissection, ligation or clipping of all afferent lymphatic channels and placement of a Redon drain left on suction for 24 h help to decrease the risk of prolonged lymphatic drainage.

Thus lymph nodes from the external iliac, common iliac, internal iliac and obturator region are obtained. With this technique a mean number of 30 lymph nodes are dissected with extended pelvic lymphadenectomy as compared to 11 nodes with standard lymphadenectomy.

The detection of micrometastases in a high risk group is of importance as a prolonged survival for patients with radical prostatectomy and less than three metastatic nodes has been found. Initiation of early adjuvant androgen deprivation in patients with minimal lymph node involvement may also result in a favourable prognosis. At the very least, patients with early antiandrogenic treatment have shown less morbidity than those being treated at the time of PSA progression or those without treatment.
Anatomy of the lateral pelvic wall

Extended pelvic lymphadenectomy includes lymph nodes from the external iliac, common iliac, internal iliac and obturator region. Especially lymphadenectomy obtaining the internal iliac lymph nodes should be performed in a high risk patient group.